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| 10/619,617      | 07/16/2003  | Chung-Ung Kim        | 1293-1738           | 7308             |

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EXAMINER

HALEY, JOSEPH R

ART UNIT PAPER NUMBER

2627

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/619,617

Applicant(s)

KIM ET AL.

Examiner

Joseph Haley

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19 is/are allowed.
- 6) ☒ Claim(s) 20-24 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over English Translation of Jung (KR 1999-003365) in view of Nishi (US 2001/00110579).

In regard to claim 20, Jung teaches radiating a plurality of parallel light beams, using an autocollimator, onto a mirror disc mounted on the turntable, and two mirror plates that are installed on the pair of rails (see fig. 1 elements 13, 5, 6 and 7. In regard to the mirror plates being installed on the rails, the entire apparatus is on the rails so must be the mirror plates) but does not teach calculating an amount of tilting from focused points of light beams reflected from the mirror disc and the mirror plates and passing through the autocollimator.

Nishi teaches calculating an amount of tilting from focused points of light beams reflected from the mirror disc and the mirror plates and passing through the autocollimator (see paragraphs 52 and 53. Nishi teaches a focus sensor that is used to control the tilt of the apparatus to the desired result).

The two are analogous art because they both deal with the same field of invention of controlling the tilt of an apparatus.

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the apparatus of Jung with the tilt controller of Nishi. The rationale is as follows: At the time of invention it would have been obvious to provide the apparatus of Jung with the tilt controller of Nishi because it would allow the tilt of the apparatus to be controlled more accurately.

In regard to claim 21, Jung teaches spinning the mirror disc mounted on the turntable (fig. 2 element 3 see also page 7 lines 2-5).

In regard to claim 22, Jung teaches detecting a first focused point formed by reflection from the two mirror plates; detecting a second focused point formed by reflection from the mirror disc (see page 8 third paragraph).

Nishi teaches calculating the amount of tilting from a distance between the first focused point and the second focused point (see paragraphs 52 and 53. Nishi teaches a focus sensor that is used to control the tilt of the apparatus to the desired result).

In regard to claim 23, Jung teaches the first focused point is a central point on a line connecting two focused points formed by reflection from the first and second mirror plates (Jung teaches the structure of claims 20 and 22 therefore it is inherent this result would follow).

In regard to claim 24, Jung teaches the second focused point is a central point of an approximately circular area formed by reflection from the mirror disc (Jung teaches the structure of claims 20 and 22 therefore it is inherent this result would follow).

***Allowable Subject Matter***

Claims 1-19 are allowed.

The following is an examiner's statement of reasons for allowance:

In regard to claims 1-19 the prior art fails to teach or make obvious all the elements of the independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

Applicant's arguments, filed 3/29/06, with respect to the rejection(s) of claim(s) 1-24 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Jung in view of Nishi (see above).

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Haley whose telephone number is 571-272-0574. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jrh 

  
THANG V. TRAN  
PRIMARY EXAMINER